FORM PTQ-1449 (Modified)

LIST OF INFORMATION BY APPLICATION

(Use several sheets if necessary)

ATTY. DOCKET NO. TH-1786 (US)

APPLICATION NUMBER 10/694,338

APPLICANT

Leonid I. Rubinstein et al

FILING DATE 10/27/03

GROUP ART UNIT

1220

|                | Document No. 4,168,247 5,387,751 5,625,084 | Date 9/79 2/95 4/97 | Patentee Hayden et al Hayden et al Pitchai et al | Class 252 549 549 | Subclass 476 534 536                             | Filing<br>Appropr |       |
|----------------|--|---------------------|--|-------------------|--|-------------------|-------|
| AB AC AD AE AF | 4,168,247<br>5,387,751<br>5,625,084        | 9/79                | Hayden et al                                     | 252<br>549        | 476<br>534                                       |                   |       |
| AB AC AD AE AF | 5,387,751                                  | 2/95                | Hayden et al                                     | 549               | 534  |                   |       |
| AD AE AF       | 5,625,084                                  |                     |  |                   | <u> </u>   |                   |       |
| AD AE AF       |  | 4/97                | Pitchai et al                                    | 549               | 536  |                   |       |
| AF             |  |                     |  |                   |  |                   |       |
| AF             |  |                     |  |                   |  |                   |       |
|                |  |                     |  |                   | <del>                                     </del> | <del> </del>      |       |
| AG             |  |                     |  |                   | <del>_</del>                                     |                   |       |
|                |  |                     |  |                   |  |                   |       |
|                |  | FOREIG              | EN PATENT DOCUMENTS                              |                   | <u> </u>   | L                 |       |
|                |  |                     |  |                   | 1  | Transl            | ation |
|                | Document No.                               | Date                | Country  | Class             | Subclass   | Yes               | No    |
| ZP AI          | 357,292                                    | 3/90                | EP   |                   |  |                   |       |
| J AJ           | 2,640,540                                  | 3/78                | DE (Abstract)                                    |                   |  |                   |       |
| AK             |  |                     |  |                   |  |                   |       |
| AL             |  |                     | ·  |                   |  |                   |       |
| AM             |  |                     |  |                   |  |                   |       |
| 07             | THER DOCUMENTS (I                          | NCLUDING AU         | THOR, TITLE, DATE,                               | PERTINENT         | PAGES, ET  | C.)               |       |
| AR AR          | International Se                           | earch Repor         | t, dated February :                              | 18, 2004.         |  |                   |       |
| AS             |  |                     |  |                   |  |                   |       |
| AS             | <u>.</u>                                   |                     |  |                   |  |                   |       |
| AT             | ·  |                     |  |                   |  |                   |       |
| WANTAND .      |  | · .                 |  |                   |  |                   |       |
| XAMINER        | Jush                                       |                     | DATE CONSIDERED                                  | 111               | 11/25  |                   |       |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP \$ 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant. The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

This is not a representation that a search has been made.

FORM PTO-1449 (Modified)

ATTY. DOCKET NO. TH-1786 (US)

APPLICATION NUMBER 10/694,338

LIST OF INFORMATION ROVIDED

BY APPLICANT ADEMARA (Use several sheets if heccessary)

APPLICANT Leonid I. Rubinstein et al

FILING DATE

GROUP ART UNIT

| (400 00/0142 0110000 11 110000011) |     |                   |             | 10/27/03           | 1625      |           |  |             |  |
|------------------------------------|-----|-------------------|-------------|--------------------|-----------|-----------|--|-------------|--|
| REFERENCE                          | DES | IGNATION          | v.s.        | PATENT DOCUMENTS   |           |           |  |             |  |
| Examiner<br>Initial                |     | Document No.      | Date        | Patentee           | Class     | Subclass  | Filing<br>Appropr                                |             |  |
| (4                                 | AA  | 6,623,649         | 9/03        | Bister et al       | 210       | 763       |  | •           |  |
|                                    | AB  |                   |             | 7                  |           |           |  |             |  |
|                                    | AC  |                   |             |                    |           |           |  |             |  |
|                                    | AD  |                   |             |                    |           |           |  |             |  |
|                                    | AE  |                   |             |                    |           |           |  |             |  |
|                                    | AF  |                   |             |                    |           |           |  | *           |  |
| _                                  | AG  |                   |             |                    |           |           |  | ****        |  |
|                                    |     |                   | FOREIG      | N PATENT DOCUMENTS |           |           | I  |             |  |
| _                                  |     | Document No.      | Date        | Country            | Class     | Subclass  | Transl<br>Yes                                    | ation<br>No |  |
| .6                                 | AI  | 1,162,178         | 12/01       | EPA                |           |           |  |             |  |
|                                    | ΑJ  |                   |             |                    |           |           | <del>                                     </del> | 1           |  |
| ,                                  | AK  |                   |             |                    |           |           |  |             |  |
|                                    | AL  |                   |             |                    |           |           |  |             |  |
|                                    | AM  |                   |             |                    |           |           |  |             |  |
|                                    | 07  | THER DOCUMENTS (I | NCLUDING AU | THOR, TITLE, DATE, | PERTINENT | PAGES, ET | C.)  |             |  |
|                                    | AR  |                   |             | <u>.</u>           |           |           |  |             |  |
|                                    |     |                   | <b></b>     |                    |           | -         |  | ·           |  |
|                                    | AS  |                   |             |                    |           |           |  |             |  |
|                                    | AT  |                   |             |                    |           |           |  | <del></del> |  |
|                                    |     |                   |             | •                  |           |           |  |             |  |
| EXAMINER                           |     |                   | <u>D</u>    | DATE CONSIDERED    | 11 1      | 1119      | <del></del> -                                    |             |  |

EXAMINER: Initial if circuit considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

<sup>2.</sup> This is not a representation that a search has been made.

| , c ·             |                   | dodified)                            |                   | ATTY. DOCKET NO.<br>TH-1786 (US)                                |          | APPLICAT<br>10/694, | ION NUMBER<br>338      |                     |                 |
|-------------------|-------------------|--------------------------------------|-------------------|---|----------|---------------------|------------------------|---------------------|-----------------|
| ባ ኤ -             | T.                | OF INFORMATION PROVI<br>BY APPLICANT |                   | APPLICANT<br>Leonid I. Rubinstein et al                         |          |                     |                        |                     |                 |
|                   | 5/                | eral sheets if necessa               | ary) <sub>.</sub> | FILING DATE GROUP ART UNIT 10/27/03 1625                        |          |                     |                        |                     |                 |
| TEBRUICE.         | DESIG             | MATION                               | U.:               | S. PATENT DOCUMENTS   | - '      | <del></del>         | •                      |                     |                 |
| xaminer<br>nitial | Document No. Date |                                      | Patentee          |   | Class    | Subclass            | Filing Da<br>Appropria |                     |                 |
| 100               | AA                | 3,962,136                            | 6/76              | Nielsen et al   |          | 252                 | 454                    |                     |                 |
|                   | AB                | 4.833.261                            | 5/89              | Lauritzen   |          | 549                 | 536                    |                     |                 |
|                   | AC                | 5,965,480                            | 10/99             | Cooker et al  |          | 502                 | 226                    |                     |                 |
|                   | AD                | 5.770.746                            | 6/98              | Cooker et al  |          | 549                 | 534                    |                     |                 |
|                   | AE                | 5.698.719                            | 12/97             | Gaffney et al   | •        | 549                 | 534                    |                     |                 |
| ,                 | AF                | 5.703.254                            | 12/97             | Gaffney et al   | _        | 549                 | 536                    |                     |                 |
| $\sqrt{}$         | AG                | 4.820.675                            | 4/89              | Lauritzen   |          | 502                 | 216                    |                     |                 |
| <del></del>       | ,                 |                                      | FORE              | IGN PATENT DOCUMENT   | S.       | 141.00              | <del></del>            |                     |                 |
|                   |                   | Document No.                         | Date              | Country   | Cla      | ss                  | Subclass               | <u>Trans</u><br>Yes | slat            |
| 20                | AI                | 1.282.772                            | 4/91              | CA  | B01      | J                   | 32/00                  |                     |                 |
|                   | AJ                | 425.020 A1                           | 5/91              | EP .  | C07      | D                   | 301/10                 |                     | $\top$          |
|                   | AK                | 179.584 B1                           | 3/92              | EP  | B01.     | J                   | 23/50                  | -                   | $\top$          |
|                   | AL                | WO 00/15333                          | 3/00              | WO  | B01      | J                   | 23/50                  |                     | $\top$          |
| W                 | AM                | 0003642 B1                           | 7/84              | EP  | C071     |                     | 301/10                 |                     | $\top$          |
|                   |                   |                                      |                   | AUTHOR, TITLE, DATE   |          |                     |                        | ··•                 |                 |
| 20                | AR                | i Propytene Epoxidat                 | ion Reactions     | Improving Silver C<br>". Izv. Nauch-Issle<br>sian). (English la | d Inc    | t Nefte.            | Unlakhim Si            | n Irkutch           | for<br>. Ui     |
|                   | AS                | Ussow, A., Z. Anor                   | g. Chem. 38,      | p. 418-428, 1904.   | (Engli   | sh langua           | ge translati           | on included         | <sub>ص</sub> (1 |
| 1                 |                   | Reiss, T. Luft, G.                   | Chem Eng T        | echnol 21 1009 (  | <u> </u> | 401 404             | ·                      |                     |                 |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

1. The attached cited information should not be construed as an admission that any of the above items are prior art to the subject

DATE CONSIDERED

invention.

2. This is not a representation that a search has been made.

**EXAMINER** 

| FORM PTO-           | 1449             | (Modified)                                |               | ATTY. DOCKET NO.<br>TH-1786 (US)                      |              |              |                        |                  |  |  |
|---------------------|------------------|---|---------------|---|--------------|--------------|------------------------|------------------|--|--|
| LIS                 | T OF             | INFORMATION PROVI                         | DED           | APPLICANT<br>Leonid I. Rubinstein et al               |              |              |                        |                  |  |  |
| (                   | Vse s            | everal sheets if ne                       | cessary)      | FILING DATE GROUP ART UNIT 10/27/03 1625              |              |              |                        |                  |  |  |
| REFERENCE           | DES              | IGNATION :                                | U.S.          | PATENT DOCUMENTS                                      |              |              | <u> </u>               | •                |  |  |
| Examiner<br>Initial |                  | Document No.                              | Date          | Patentee  | Class        | Subclass     | Filing Da<br>Appropria |                  |  |  |
| Np.                 | AA               | 4,761,394                                 | 8/88          | Lauritzen   | 502          | 348          |                        |                  |  |  |
|                     | AB               | 4,916,243                                 | 4/90          | Bhasin et al  | 549          | 534          |                        |                  |  |  |
|                     | AC               | 5,057,481                                 | 10/91         | Bhasin  | 502          | 208          |                        |                  |  |  |
| ·                   | AD               | 5,670,674                                 | 9/97          | Grey  | 549          | 533          |                        |                  |  |  |
|                     | AE               | 5,864,047                                 | 1/99          | Gaffney   | 549          | 536          |                        |                  |  |  |
|                     | AF               | 5,861,519                                 | 1/99          | Kahn et al  | 549          | 536          |                        |                  |  |  |
|                     | AG               | 5,686,380                                 | 11/97         | Pitchai et al   | 502          | 347          |                        |                  |  |  |
|                     | ·                |   | FOREIG        | N PATENT DOCUMENTS                                    |              | L            | <u> </u>               |                  |  |  |
|                     |                  | Document No.                              | Date          | Country   | G1           | G-1-1        | Transla                |                  |  |  |
|                     | AI               | Document No.                              | Date          | EP  | Class        | Subclass     | Yes                    | No               |  |  |
|                     |                  |   |               |   |              |              |                        |                  |  |  |
|                     | AJ               |   |               |   |              |              |                        |                  |  |  |
|                     | AK               |   |               |   |              |              | ·                      |                  |  |  |
|                     | AL               |   |               |   |              |              |                        |                  |  |  |
|                     | AM               |   |               |   |              |              | >                      |                  |  |  |
|                     | . 07             |   |               | THOR, TITLE, DATE,                                    |              |              | -                      |                  |  |  |
| de                  | AR               | Bosch, E., Kochi,                         | J.K., J. Am   | er. Chem. Society, 199                                | 96, 118, p.  | 1319-1329.   |                        | <b>.</b>         |  |  |
|                     | AS               | International Se PCT).                    | arch Repor    | t for PCT/US03/34080                                  | dated Fe     | ebruary 6,   | 2004 (TH               | 1786             |  |  |
| 4                   | АТ               | International Pr                          | eliminary :   | Examination Report f                                  | for PCT/US   | 503/34080    | (TH1786 P              | CT) <sub>o</sub> |  |  |
| EXAMINER            |                  | my i                                      | n_            | DATE CONSIDERED                                       | 11/          | 2/51         |                        |                  |  |  |
| EXAMINER: I         | nitial<br>not in | if citation considere                     | onsidered T   | r not citation is in conn<br>aclude copy of this form | formance wit | h MPEP 8 609 | . Draw line            | through          |  |  |
| I. The s            | attach           | ed cited information a subject invention. | should not be | e construed as an admiss                              | ion that an  | y of the abo | ve items a             | re prior         |  |  |
| 2. This             | is not           | a representation tha                      | t a search ha | s been made.  |              |              |                        |                  |  |  |

FORM PTO-1449 (Modified)

| FÖRM PTO-1449 (Modified)          |         |   | ATTY. DOCKET NO. APPLICATION NUMBER . TH-1786 (US) 10/694,338 |  |   |                                   |                               |           |
|-----------------------------------|---------|---|---|--|---|-----------------------------------|-------------------------------|-----------|
|                                   | LIST (  | OF INFORMATION PROVI<br>BY APPLICANT  | DED   | APPLICANT<br>Leonid I. Rubinstein et al              |   |                                   |                               |           |
| (Use several sheets if necessary) |         |   |   | FILING DATE<br>10/27/03                              | GROUP ART UNIT                                  |                                   |                               |           |
| REFERENCE                         | DESIGN  | NATION  | U.S   | . PATENT DOCUMENTS                                   |   |                                   |                               |           |
| xaminer<br>[nitia]                |         | Document No.  | Date  | Patentee   | Class   | Subclass                          | Filing Da<br>Appropria        |           |
| 10                                | AA      | 5.573.989   | 11/96   | Sugita et al   | 502   | 64                                |                               |           |
|                                   | AB      | 4.007.135   | 2/77  | Hayden et al   | 252   | 467                               | <u> </u>                      |           |
|                                   | AC      | 2.615.900   | 10/52   | G. W. Sears, Jr.                                     | 260   | 348.5                             | <del> </del>                  |           |
|                                   | AD      | 5.504.053   | 4/96  | Chou et al   | 502   | 348                               |                               |           |
|                                   | AE      | 4.010.115   | 3/77  | Nielsen et al  | 252   | 454                               |                               |           |
| 1                                 | AF      | 4.883.889   | 11/89   | Pennington   | 549   | 532                               |                               |           |
| V                                 | AG      | 5,525,741   | 6/96  | Sugita et al   | 549   | 536                               |                               | <u></u>   |
|                                   |         |   | FORE  | IGN PATENT DOCUMENTS                                 |   |                                   |                               |           |
|                                   |         | Document No.  | Date  | Country  | Class   | Subclass                          | <u>Translat</u><br>Yes        | ion<br>No |
|                                   | AI      |   |   |  |   |                                   |                               | T         |
|                                   | AJ      |   |   |  |   |                                   |                               | <u> </u>  |
|                                   | AK      |   |   |  |   | <u> </u>                          | †                             | +         |
|                                   | AL      |   |   |  |   |                                   |                               | +-        |
|                                   | AM      |   |   |  |   |                                   |                               |           |
|                                   |         | OTHER DOCUMENTS   | (INCLUDING A  | AUTHOR, TITLE, DATE, P                               | ERTINENT PAG                                    | ES, ETC.)                         |                               | _         |
| No                                | AR      | Written Opinion fo  | r PCT/US03/34   | 080 (TH1786 PCT)                                     |   |                                   | -                             | <u> </u>  |
|                                   | AS      |   |   |  |   | ,                                 |                               |           |
|                                   | AT      |   |   |  |   |                                   |                               | _         |
| (AMINER                           | -       | myn   | 24  | DATE CONSIDERED                                      | 11/   | 7/55                              | _                             |           |
| The a                             | ttached | citation considered, when sidered information shoul representation that a s | d not be constru  | next communication to the ued as an admission that a | th MPEP \$/609.<br>applicant.<br>ny of the abov | Draw line thro<br>e items are pri | ugh citation<br>ior art to th | if not    |

| FORM PTO-           | 1449 (K  | odified)                           |              | ATTY. DOCKET NO. APPLICATION NUMBER TH-1786 (US) 10/694.338 |              |           |                               |  |  |  |
|---------------------|----------|------------------------------------|--------------|---|--------------|-----------|-------------------------------|--|--|--|
|                     | LIST 0   | F INFORMATION PROVIDE BY APPLICANT | ED           | APPLICANT<br>Leonid I. Rubinstein et al                     |              |           |                               |  |  |  |
| (1                  | Use seve | eral sheets if necessar            | y)           | FILING DATE<br>10/27/03                                     |              |           |                               |  |  |  |
| REFERENCE           | DESIGN   | ATION                              | U.S          | . PATENT DOCUMENTS  |              |           |                               |  |  |  |
| Examiner<br>Initial |          | Document No.                       | Date         | Patentee  | Class        | Subclass  | Filing Date if<br>Appropriate |  |  |  |
|                     | AA       | 5.142.070                          | 8/92         | Fullington et al  | 549          | 532       |                               |  |  |  |
|                     | AB       | 4.785.123                          | 11/88        | Pennington  | 549          | 532       |                               |  |  |  |
|                     | AC       | 4.012.425                          | 3/77         | Nielsen et al   | 260          | 348.5     |                               |  |  |  |
|                     | AD       |                                    |              |   |              |           |                               |  |  |  |
|                     | AE       |                                    |              |   | -            | <u> </u>  |                               |  |  |  |
|                     | AF       |                                    |              |   |              |           |                               |  |  |  |
| -                   | AG       |                                    |              |   |              |           |                               |  |  |  |
|                     |          |                                    | FORE         | I<br>IGN PATENT DOCUMENTS                                   |              | 1         | <u> </u>                      |  |  |  |
| <del></del>         | T        |                                    |              |   |              |           | <u>Translation</u>            |  |  |  |
|                     | AI       | Document No.                       | Date         | Country   | Class        | Subclass  | Yes No                        |  |  |  |
|                     | AJ       |                                    | <u> </u>     |   |              |           |                               |  |  |  |
|                     | AK       |                                    |              |   |              |           |                               |  |  |  |
|                     | AL       |                                    |              | ·   |              |           |                               |  |  |  |
|                     | AM       |                                    | <del> </del> |   |              | <u> </u>  |                               |  |  |  |
|                     |          |                                    |              |   |              |           |                               |  |  |  |
| <del></del>         |          | OTHER DOCUMENTS                    | (INCLUDING A | NUTHOR, TITLE, DATE, P                                      | ERTINENT PAG | ES, ETC.) |                               |  |  |  |
|                     | AR       |                                    |              |   |              |           |                               |  |  |  |
|                     | AS       |                                    |              |   |              |           | _                             |  |  |  |
|                     | AT       |                                    |              |   |              |           |                               |  |  |  |
| EXAMINER            |          |                                    |              | DATE CONSIDERED   |              |           |                               |  |  |  |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP \$ 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject

invention.

This is not a representation that a search has been made.